

CLAIMS

1. A press belt in a press comprising a rotatively traveling endless press belt (2) and pressing means (1, 3) located inside the periphery and/or outside the periphery of
5 said press belt,

said press belt including terminal corresponding areas (B, B') corresponding to both ends (7, 7', 9, 9') of said pressing means in the cross direction and a central area (A) located between said terminal corresponding areas, and

mainly composed of thermosetting polyurethane obtained from a thermosetting
10 polyurethane material containing a phenylene isocyanate derivative having an isocyanate group (NCO) on an end and a hardener having an active hydrogen group (H) on an end, wherein

the equivalent ratio (H/NCO) between said active hydrogen group (H) and said isocyanate group (NCO) is set relatively high on said terminal corresponding areas and
15 relatively low on said central area.

2. The press belt according to claim 1, wherein said thermosetting polyurethane is obtained by reacting a urethane prepolymer having an isocyanate group (NCO) on an end and the hardener having the active hydrogen group (H) on the end
20 with each other.

3. The press belt according to claim 1, wherein the value of said equivalent ratio (H/NCO) is at least 1.01 and not more than 1.14 on said terminal corresponding areas and at least 0.85 and less than 1.08 on said central area.

25 4. The press belt according to claim 1, wherein the difference in hardness between said central area and said terminal corresponding areas is less than 1 degree in type A durometer hardness.

5. The press belt according to claim 1, wherein the thickness on said terminal corresponding areas is smaller than the thickness on said central area.

5 6. The press belt according to claim 1, wherein a large number of cavities (21) are formed on the outer peripheral surface over said central area and said terminal corresponding areas.

10 7. The press belt according to claim 6, wherein the cavities (26, 26') located on said terminal corresponding areas are deeper with respect to the depth of said cavities (25) located on said central area.

15 8. A shoe press roll (30) comprising an outer cylinder formed by an endless press belt (2) and a pressure shoe serving as pressing means (3) located inside the periphery of said outer cylinder, wherein
said outer cylinder is the press belt according to any of claims 1 to 7.

20 9. A method of manufacturing a press belt in a press comprising a rotatively traveling endless press belt (2) and pressing means (1, 3) located inside the periphery and/or outside the periphery of said press belt,

said press belt including terminal corresponding areas (B, B') corresponding to both ends (7, 7', 9, 9') of said pressing means in the cross direction and a central area (A) located between said terminal corresponding areas,

said method of manufacturing a press belt including:

25 a first step of preparing at least two types of thermosetting polyurethane materials containing phenylene isocyanate derivatives having isocyanate groups (NCO) on ends and hardeners having active hydrogen groups (H) on ends with different equivalent ratios (H/NCO) between said active hydrogen groups (H) and said isocyanate

groups (NCO);

a second step of distributing said thermosetting polyurethane materials so that the values of the equivalent ratios (H/NCO) between said active hydrogen groups (H) and said isocyanate groups (NCO) are relatively high on said terminal corresponding areas and relatively low on said central area; and

a third step of hardening said thermosetting polyurethane materials.

10. The method of manufacturing a press belt according to claim 9, forming at least the outer peripheral surface of said press belt through said second step.